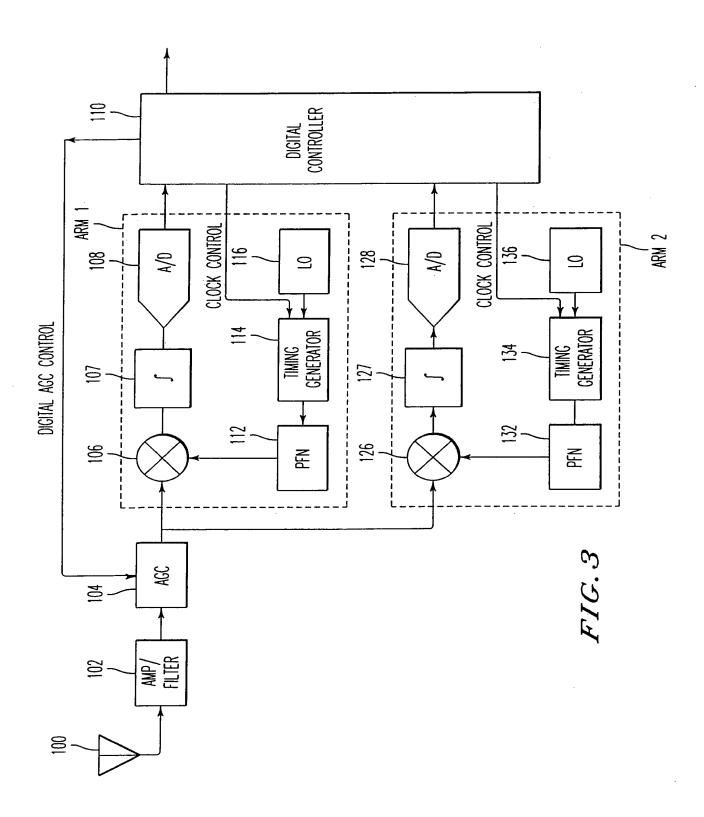


FIG. 2



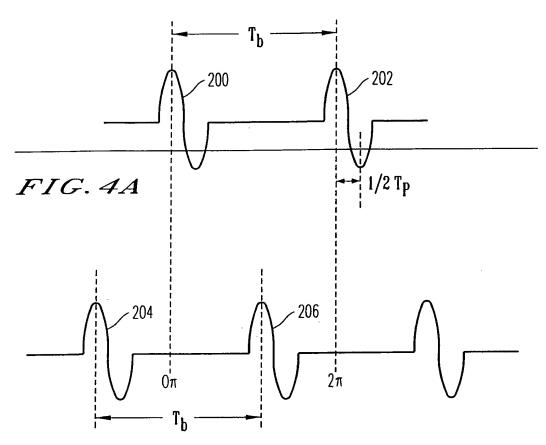


FIG. 4B

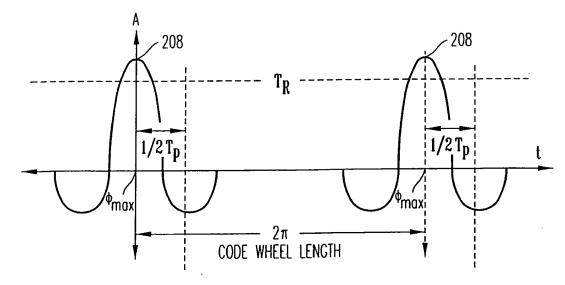


FIG. 4C

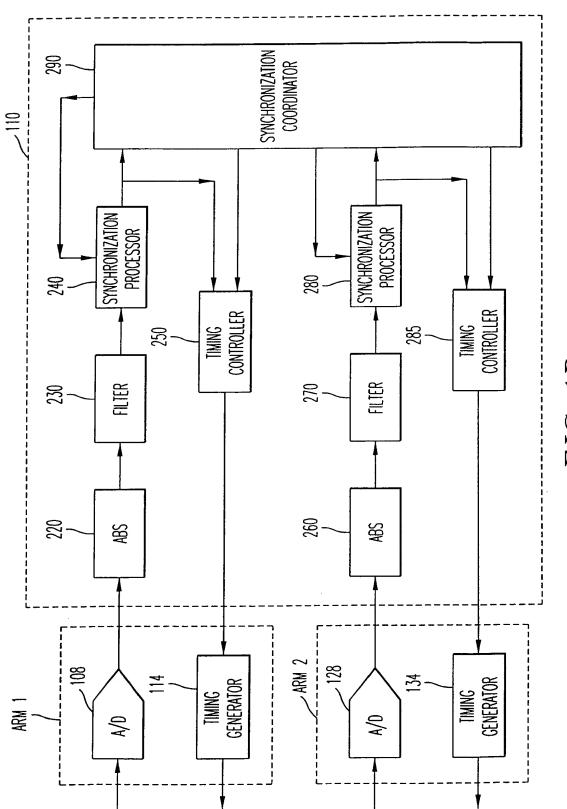


FIG. 4D

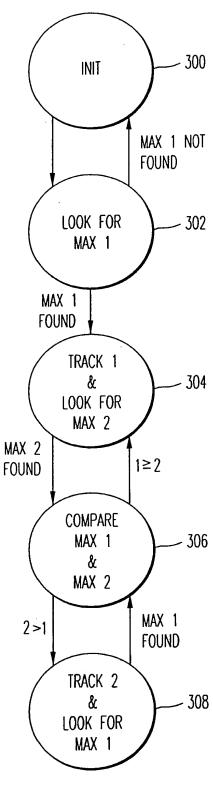


FIG. 5

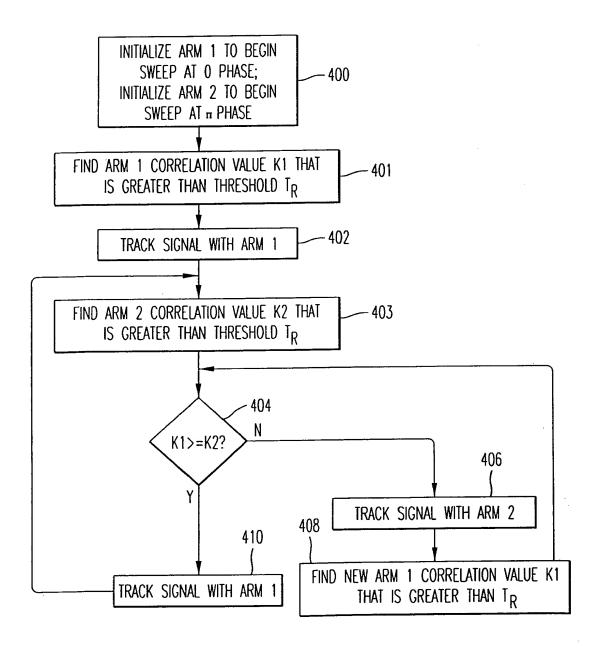
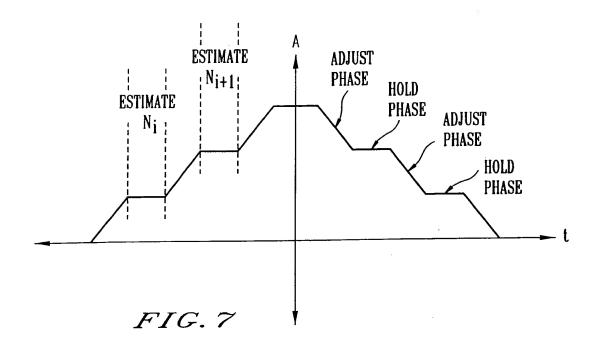
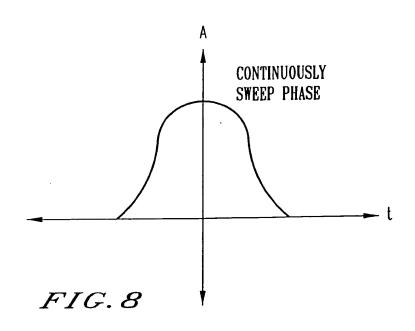


FIG. 6





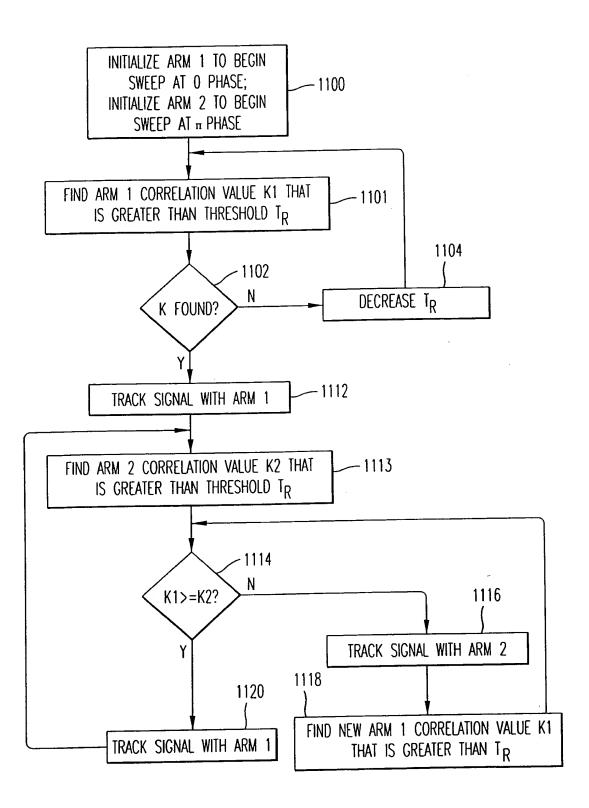


FIG. 9

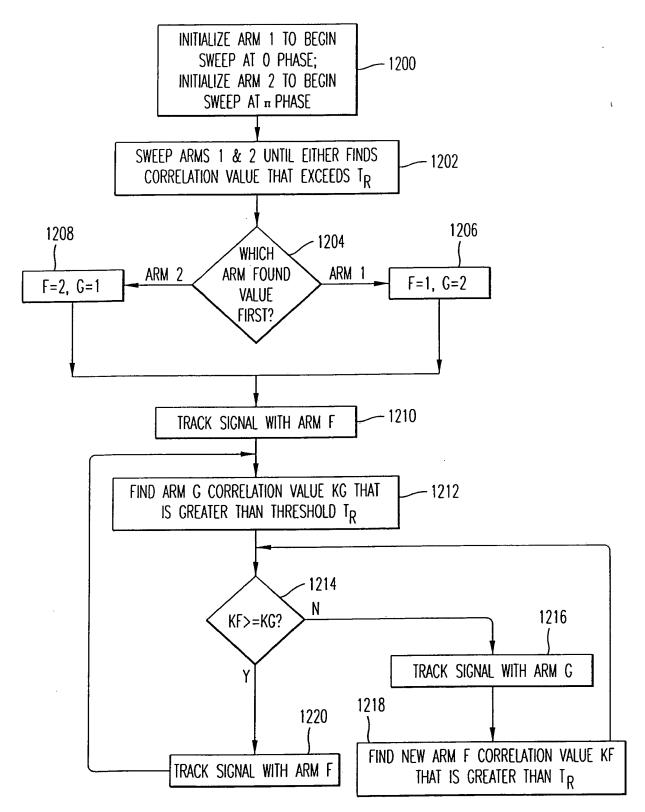


FIG. 10

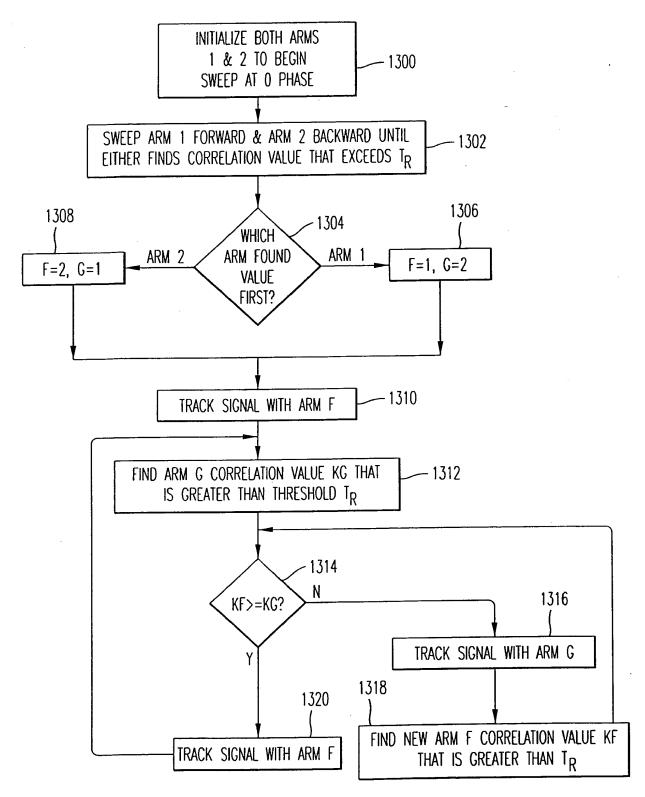


FIG. 11

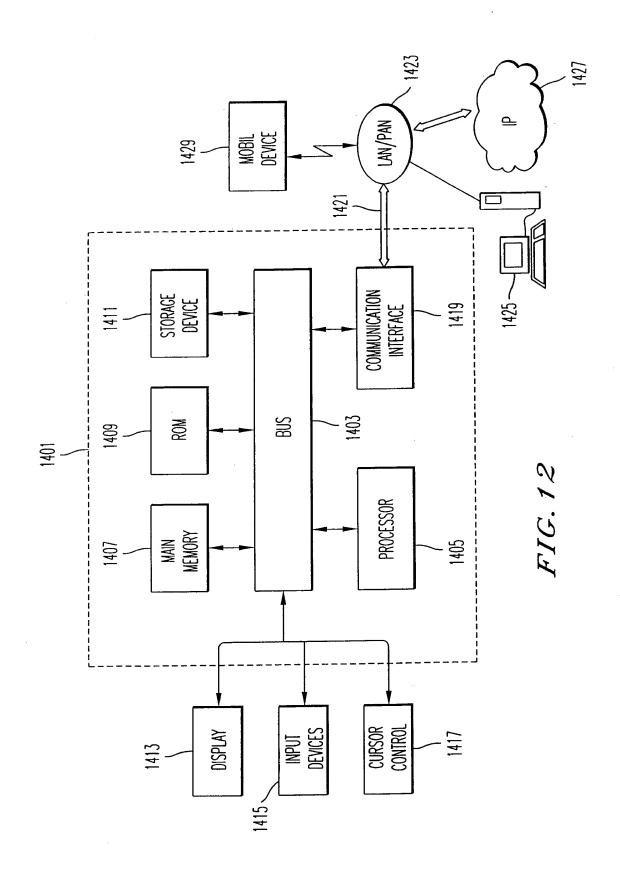
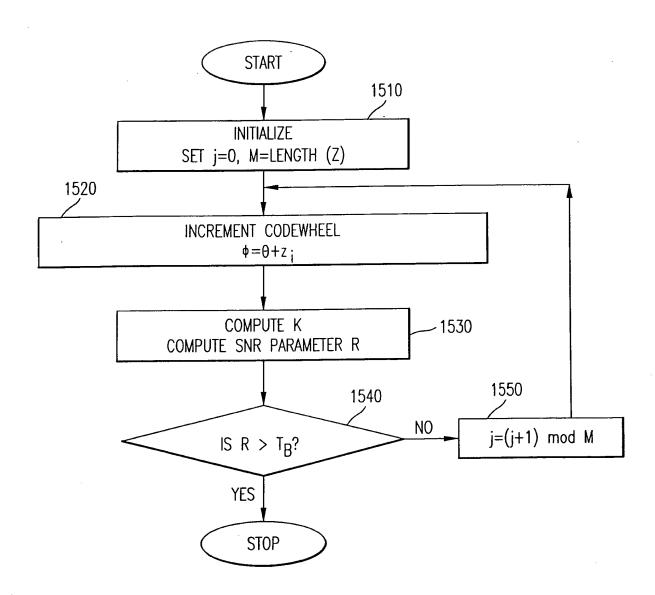
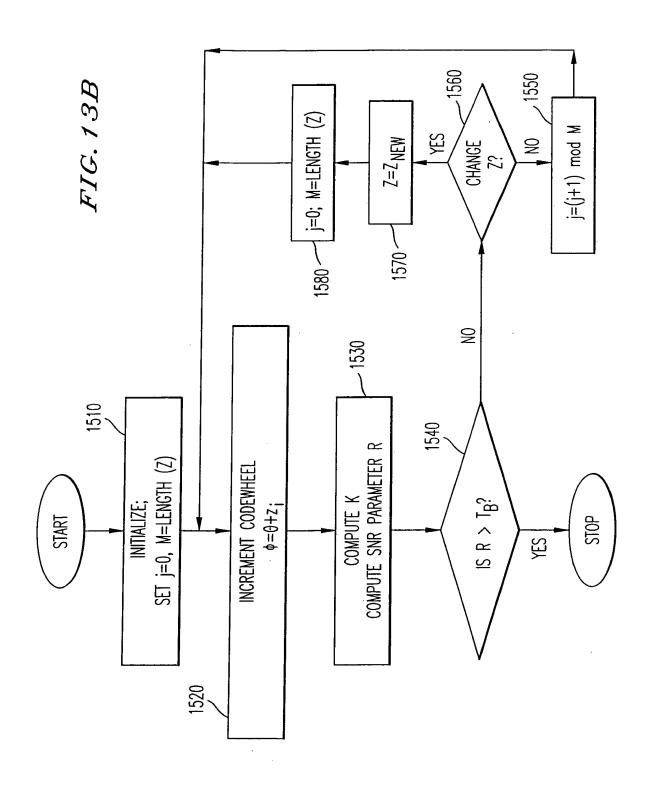
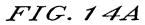


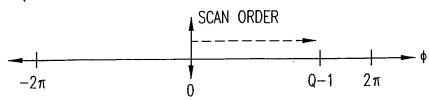
FIG. 13A



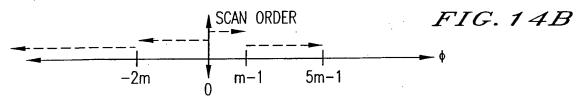


$$Z1=\{0, n, 2n, 3n,...,Q-3, Q-2, Q-1\}.$$

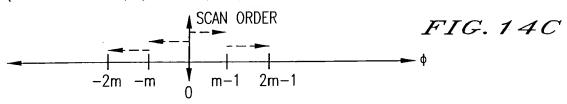




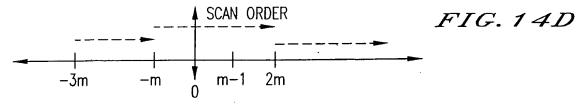
Z2 (FIRST EXAMPLE)= $n^*\{[0,m-1], [-1,-2m], [m,5m-1], [-2m-1,-10m],...,(Q-1)/n\}$ .



Z2 (SECOND EXAMPLE)= $\{0,n,2n,...,(m-1)^*n,-n,-2n,...,-m^*n,m^*n,(m+1)^*n,(m+2)^*n,...,(Q-1)\}$ .



Z2 (THIRD EXAMPLE)= $\{-m^*n,(-m+1)^*n,(-m+2)^*n,...,-n,0,n,...,m^*n,(m+1)^*n,(m+2)^*n,...,2m^*n,(-3m)^*n,(-3m+1)^*n,(-3m+2)^*n,...,(-m-1)^*n,(2m+1)^*n,(2m+2)^*n,...,(Q-1)\}.$ 

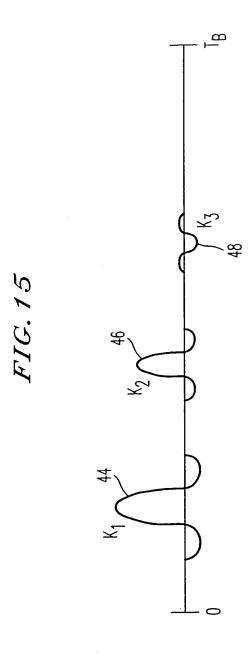


WHERE FOR FIGS. 14A, 14B, 14C, AND 14D:

Q=TOTAL NUMBER OF CODEWHEEL INCREMENTS IN EACH CODEWHEEL SPIN.THE MAXIMUM CODEWHEEL SPIN IS A COMPLETE  $(2\pi)$  CODEWHEEL SPIN, BUT OTHER CODEWHEEL SPINS ARE AVAILABLE;

n=AN ARBITRAY LOCAL PARAMETER THAT CONTROLS HOW FAST THE CODE WHEEL SPINS DEPENDING ON THE TIME INCREMENT STEP SIZE; AND

m=A NUMBER OF INCREMENTS LESS THAN THE TOTAL NUMBER OF INCREMENTS.



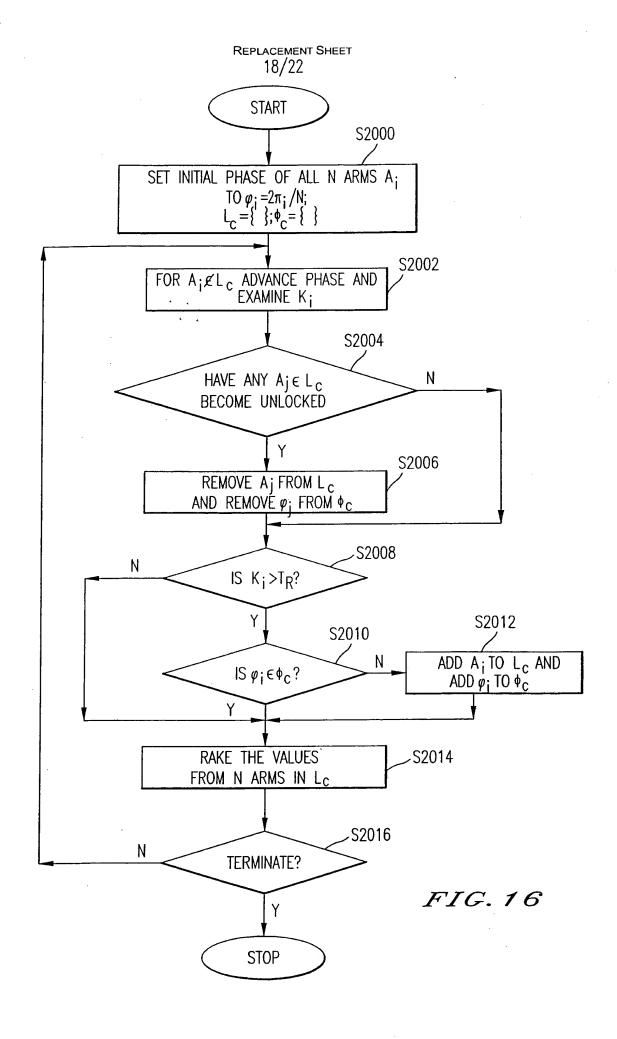


FIG. 17A

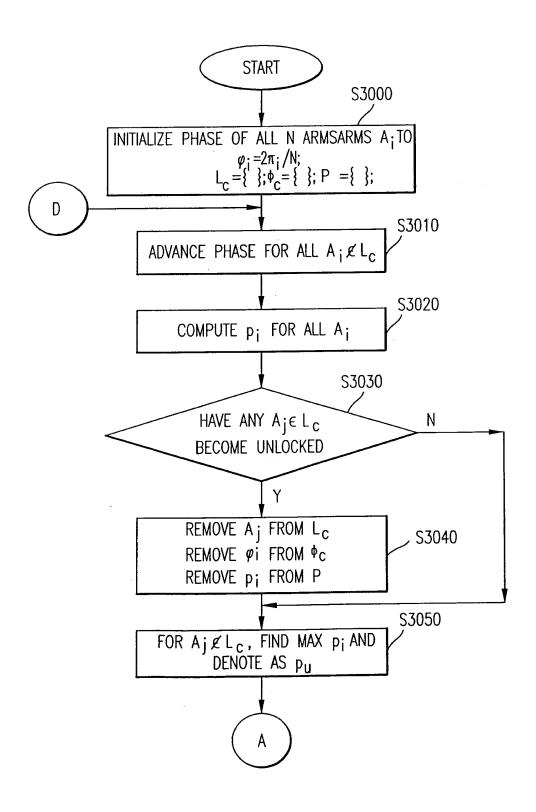


FIG. 17B

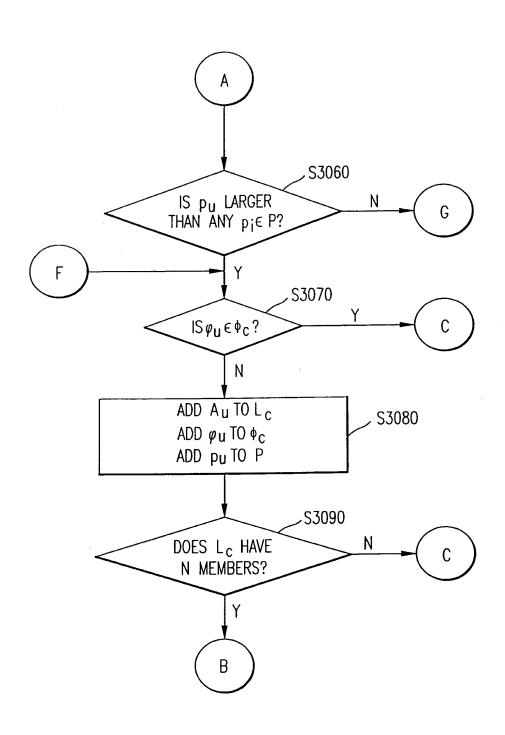


FIG. 17C

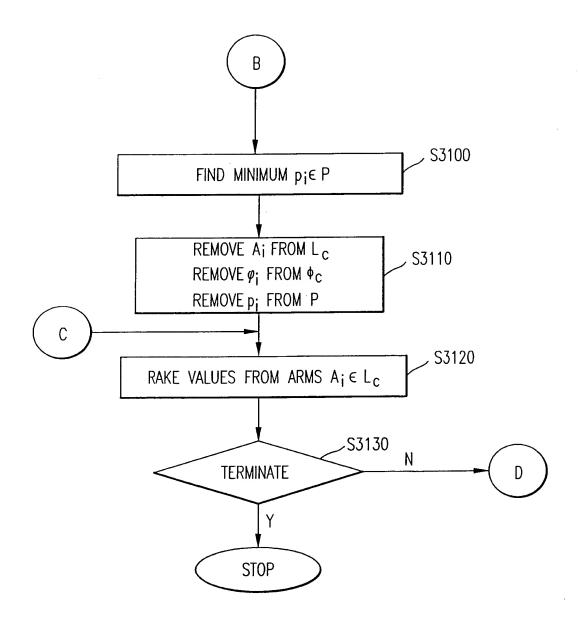


FIG. 17D

